

Inequalities in Dental Service Utilization Among Adults: Evidence from Bangladesh, Bhutan, and Nepal

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Extended Abstract

Background: Oral health is a vital aspect of overall well-being [1-3], yet there remain substantial disparities in Dental Service Utilization (DSU), particularly in low- and middle-income countries. This study investigates the socioeconomic and education-related inequalities in DSU among adults in Bangladesh, Bhutan, and Nepal, examining both relative and absolute disparities.

Objective: The objective is to assess socioeconomic and education-related disparities in dental service utilization (DSU) among adults in Bangladesh, Bhutan, and Nepal, with an emphasis on measuring both relative and absolute inequalities.

Methods: Data were obtained from the WHO STEPS-wise approach to surveillance surveys [4-6] conducted in Bangladesh, Bhutan, and Nepal. Descriptive statistics were used to describe the basic characteristics of the study population. Socioeconomic and education-related disparities in DSU were analyzed using the Slope Index of Inequality (SII), Relative Index of Inequality (RII), and Relative Concentration Index (RCI). A multilevel mixed-effects binary logistic regression model was also applied to identify key predictors of DSU, such as age, gender, residence, and socioeconomic status.

Results: The highest DSU rate was found in Bhutan (48.8%), followed by Bangladesh (29.1%) and Nepal (5.6%). In Bhutan, significant socioeconomic inequality was evident, with wealthier individuals being 2-3 times more likely to access dental services compared to poorer individuals (RII: 2.08 to 3.34). Absolute disparities were also notable in Bhutan, with significant gaps between advantaged and disadvantaged groups (SII: 34.3). In Bangladesh, moderate disparities were present (RII: 1.17, RCI: 6.3), while Nepal displayed minimal inequalities (RII near 1, SII: -2.6). Age, education, gender, and urban residency were key determinants of DSU.

Conclusions: Significant socioeconomic and educational inequalities in DSU are present in these South Asian nations, with the most pronounced disparities in Bhutan. Policy interventions targeting these inequalities, enhancing healthcare infrastructure, and providing support for disadvantaged populations are needed to address these gaps.

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